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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/458,319	12/10/1999	AIDAN JAMES SMYTH	SEDN/043	8719
56015 7590 05/02/2007 PATTERSON & SHERIDAN, LLP/ SEDNA PATENT SERVICES, LLC 595 SHREWSBURY AVENUE SUITE 100 SHREWSBURY, NJ 07702			EXAMINER RAMAN, USHA	
			ART UNIT 2623	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/458,319	<b>Applicant(s)</b> SMYTH ET AL.	
	<b>Examiner</b> Usha Raman	<b>Art Unit</b> 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 8-21 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Drawings***

1. The drawings were received on January 22<sup>nd</sup> 2007. These drawings are acceptable.

***Response to Arguments***

2. Applicant's arguments filed January 22<sup>nd</sup> 2007 have been fully considered but they are not persuasive.

Applicant argues that, ""indexing is not the same as the splicing taught by applicant's invention" because "splicing does not require the use of an index table as taught by DeMoney" (see Remarks, page 9). The examiner respectfully disagrees because DeMoney specifically teaches in column 9, lines 25-30 that a random access indicator is set within the transport packet header to indicate the file offsets and therefore entry/exit points within the content stream. The index file notes these access points in order to identify the *corresponding offset* in a fast forward or reverse stream, when a user uses fast forward or rewind playback control options and to identify the corresponding offset in the normal play stream, when the user returns to a normal playback control, thereby associating a playback time with a file offset for entry/exit at "random access points". For example, consider an example, where a user is watching a content stream that has 30 minutes playback time. At a playback time of 4:10, the user decides to fast forward this stream. In accordance with the teachings of DeMoney, the index look up table is used to identify the location in the fast forward stream that roughly corresponds to the playback time of 4:10 of the normal play stream. Upon identification of the

corresponding point in the fast forward stream, the fast forward stream is played back to the user, until the user resumes to the normal play mode. In the case of this example, suppose the user resumes normal playback option at 15:00 of playback time, the index look up table is used again to find a location roughly corresponding to 15:00 of playback time in the normal play stream. Therefore it can be seen that the index table is used to find corresponding locations for a particular NPT when switching playback controls, and comprises the list of entry/exit points in the respective streams. See column 8, lines 26-30, 38-45, and column 9, lines 60- column 10, line 6. However, the content streams have the entry and the exit points because the streams are accessible at random access points. See column 9, lines 25-30.

Applicant's arguments stating that, "Day and DeMoney cannot be meaningfully combined" because "Day teaches a method that concatenates entire video segments in stark contrast to DeMoney that teaches indexing within a multimedia stream to create look up tables" have been noted. The examiner again respectfully disagrees. As pointed by the video segments, Day concatenates video segments to reduce latency by pre-fetching the next item in a play list. While Day teaches providing VCR functionalities, such as "rewind" or "fast-forward", Day is silent on how this is accomplished. DeMoney teaches a specific method of implementing the trick play functions such as fast-forward and rewind. As such, DeMoney does not teach away from Day, because DeMoney shows how to accomplish fast-forward and rewind functions within a content stream.

***Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Day et al. (US Pat. 5,996,015) in view of DeMoney (US Pat. 6,065,050), and Katinsky et al. (US Pat. 6,452,609).

In regards to claims 8 and 16, Day discloses an information distribution system including provider equipment (201) and subscriber equipment (203), wherein provider equipment communicates to said subscriber equipment information streams including content requested by said subscriber equipment (see column 3, lines 10-20 and lines 43-46), comprising:

a session manager, for interacting with said subscriber equipment and maintaining a plurality of playlists (multiple data pumps service a plurality of clients by streaming data to a plurality of clients, therefore multiple playlists are generated for each of plurality clients, see column 3, lines 30-31, lines 43-47, and lines 55-58) wherein each playlist (i.e. provides stream control functions for controlling the playback of media. See column 3, lines 58-61, column 4 lines 1-2 and column 5, lines 43-45) is associated with a respective subscriber, said playlist defining plurality of content streams to be provided to the subscriber ("selected video segments", see column 6, lines 28-29). The session manager further inherently

"stores" (by caching) the generated playlist at the server while the session is alive, in order to access the playlist for playback of next media clip.

a server for storing content streams (data pump 111 stores multimedia assets. See column 3, lines 43-45); and

a server controller for retrieving from said server, content streams defined by said playlist, said content streams being sequentially provided to said subscriber equipment (see column 5, lines 45-54, column 6, lines 40-50);

Day also discloses that during the playback of clips from a playlist the system determines if additional clips in the playlist are present, and in the event there are additional clips, it retrieves the additional clips and concatenates it to the current clip so that the clip maybe played seamlessly. See Day: column 6, lines 36-64. Furthermore, while the session is active, the system checks for additional clips in the playlist, to determine if additional data needs to be retrieved. Therefore, the system also comprises the step of "continuously accessing playlist" while the session is active, in order to determine when the next clip needs to be retrieved in order to be streamed to the user.

While Day teaches controlling the playback of a content stream using VCR style functions (see column 5, lines 43-45), Day is silent on how VCR style functionalities are achieved. The system therefore is silent on the step of associating a fast forward and reverse stream with the content streams or modifying the play list in response to play list modification commands from a subscriber equipment.

In a similar field of endeavor, DeMoney details on implementing VCR style functions. DeMoney teaches accomplishing VCR style functions by maintaining normal play stream with a look up table and associating the trick play streams (such as fast forward and fast reverse streams) with the content stream. When a user changes the playback rates (i.e. change of attribute) of the content stream using VCR type functions, the media server switches the respective trick play stream associated with the command, based on the offset from the look up table. Note column 4, lines 59-67 and column 5, lines 1-60 of DeMoney. DeMoney further discloses that switching of streams occurs only at well-defined "random-access" points (i.e. splicing points). Note column 5, lines 47-52, column 9, lines 25-30. The index table contains a list of the offset points that mark the entry and exit points. The content streams have the entry and the exit points because the streams are accessible at random access points. See column 9, lines 25-30. When a content stream is switched, the media server looks for an offset in the next content stream (i.e. an entry point in the next content stream) that is just beyond the current output offset (i.e. exit point of the current content stream). Note column 10, lines 31-53.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Day in view of DeMoney's teachings by maintaining a look up table associating trick play streams with the content streams as an "additional information" relating to the content stream (see column 4, lines 8-22 in Day) for providing trick play functionality by indexing, in order to reduce

processing requirement of the video server. The modified system further contains plurality of splicing points for each content stream, where the next content stream is spliced at an entry point (next offset) associated with an exit point (current offset) of a current stream.

The modified system of Day in view of DeMoney lacks modifying the play list in response to play list modification commands sent from subscriber equipment.

Katinsky teaches a user-friendly media player interface that initiates and manages a session with content provider (i.e. "session manager") by creating and maintaining a sequencer (play list) with content streams to be played at the subscriber equipment, where the media player further allows the user to modify the play list. Note column 3, lines 43-54 and column 4, lines 10-20 of Katinsky. Using the media player interface, the subscriber can modify the play list by adding or deleting content streams as well as skip forward and backward to a content stream to be played. Note column 6, lines 19-26 and column 2, lines 55-57 in Katinsky.

It would have been obvious to further modify the system of Day in view of DeMoney with Katinsky's teachings by providing a play-list modification capabilities of Katinsky in order to allow the user to dynamically modify or change the sequence of media content streams to be played.

In further regards to claim 16, Day further discloses that the playlist is generated at the provider equipment. See column 6, lines 14-30 in Day. Furthermore, the session manager of the modified system controls the media



session in response to all the user commands, including playlist modification commands.

In regards to claims 9 and 17, the modified system provides modification commands such as fast forward, fast reverse as well as skip forward and skip backwards commands (see column 6, lines 19-26 in Katinsky).

In regards to claims 10 and 18, the modified system provides a session manager with "add" and "delete" functionalities that allow media objects to be added or removed from the play list. Note column 2, lines 55-57.

In regards to claim 11, the modified system provides a session manager with skip forward and skip backward functionalities to skip to next or previous clip in the play-list. Note figure 7, reference numbers (106) and (107) and description in column 6, lines 19-26 of Katinsky.

In regards to claims 12 and 19, the modified system provides a session manager with trick play functionalities that allow a fast reverse and fast forward stream to be associated with the content stream in response to fast forward and fast reverse commands. Note column 5, lines 25-60 of DeMoney.

In regards to claims 13 and 20, Day discloses that at a predetermined point (threshold level) prior to the end of the current data stream, an initialization process begins for the next video segment on the play list, to prepare the next data stream to be seamlessly concatenated to the end of the current data stream. Note column 6, lines 31-64 of Day. Therefore the modified system of Day in view of DeMoney and Katinsky has "termination notification" means that is communicated to the

server when the current data stream reaches the predetermined point (the threshold level).

In regards to claims 14 and 21, upon reaching the predetermined point prior to the end of the current data stream, the session manager indicates to the server controller the next content stream to be provided to the subscriber equipment.

In regards to claim 15, the multimedia files in the modified system are striped across disks of a plurality of storage servers. Note column 3, lines 15-20, lines 39-67, and column 4, lines 23-30 of Day. The data pump acts as the "transport processor", where under the control of the server controller, delivers the media assets to the subscriber equipment.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usha Raman whose telephone number is (571) 272-7380. The examiner can normally be reached on Mon-Fri: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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PRIMARY PATENT EXAMINER